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PTO/SB/33 (07-09)
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): VOCP101US

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on March 7, 2011

Signature /Emily C. Arkutik/

Typed or printed name Emily C. Arkutik

Application Number 10/685,074	Filed October 14, 2003
First Named Inventor Donald Paul Archiable	
Art Unit 2618	Examiner Quochien B. Vuong

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☑ attorney or agent of record.
Registration number 47,965.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34

/David J. Stein/
Signature

David J. Stein
Typed or printed name

(216) 654-0090
Telephone number

March 7, 2011
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☑ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Docket No. **VOCP101US**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

Applicant:	Donald Paul Archiable
Application No.:	10/685,074
For:	PVLAN
Filing Date:	October 14, 2003
Examiner:	Quochien B. Vuong
Art Unit:	2618

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Consideration of the issues presented in the attached Remarks is respectfully requested.

REMARKS

I. DISCLOSED TECHNIQUES

The present disclosure relates to the configuration of wireless networking components and the properties of a wireless network arising therefrom.

In many scenarios, a designer of a wireless network may wish to maximize the range and/or strength of the electromagnetic field; *e.g.*, it may be desirable to configure a wireless communication system to present at least a minimum strength with the largest achievable radius. However, in other scenarios, it may be desirable to limit the strength and/or range of the wireless network. As a first example, it may be desirable to generate a wireless network that is only accessible within a limited area (*e.g.*, a secured area of a building), and that is not sufficiently strong or expansive to permit devices positioned outside of the limited area to eavesdrop or otherwise participate in the wireless network. As a second example, it may be desirable to limit the range of a wireless network to areas that are occupied by wireless communication devices. One such scenario relates to health concerns about exposing individuals to electromagnetic fields. In an office environment, even if an electromagnetic field generated near the seating area of an individual is not particularly strong, it may be undesirable to expose the individual to the electromagnetic field for 2,000 workday hours per year.

The presently disclosed techniques relate to these latter scenarios and in particular to the generation of a wireless network in the proximity of a surface of an object, such as the working surface of a table or desk. As presented in independent claims 1, 33, and 37, these techniques involve configuring the wireless network components to generate a wireless network that is restrictively ranged proximate to at least a portion of the surface. That is, the wireless network components are not configured to achieve maximal range, field strength, or efficiency, but rather to generate a wireless network that is only accessible within a limited range within the proximity of the surface. As a first example, a desk may have an area where a computer is likely to be positioned (*e.g.*, near a keyboard tray built into the desk). A wireless network may be generated to service this computer by positioning an antenna near this portion of the desk, creating a wireless communication field shaped as a half-sphere encompassing the area where the computer is likely to be positioned. The antenna may be powered just enough to generate a wireless network within this half-sphere but no more, such that the wireless communication network does not extend further outward (*e.g.*, laterally along the surface of the desktop or considerably above or below the desktop). As a second example, the wireless communication system may be generated by an array of antennae positioned as a plane or grid within or below the surface of the desktop. Each antenna may be provided a small amount of power to generate a communication network of a small radius (*e.g.*, a six-inch-radius sphere in the vicinity of the antenna), and the antenna array may generate a wireless network that extends laterally over the desktop, but extending vertically only six inches above the desktop surface .

Thus, the wireless network generated by the techniques presented herein is range-restricted proximate to at least a portion of a surface. Moreover, this restriction is achieved through the configuration of the driven element (*e.g.*, one or more antennae), such as the position and shape of one or more antenna(e) with respect to the surface and/or the power applied to the antenna . While additional techniques may further limit the shape and/or extent of the wireless network (*e.g.*, shielding that blocks transmission of the wireless field), such features are supplemental to the range restriction of the wireless network based on the configuration of the driven element.

II. PROSECUTION HISTORY

The application was filed in October 14, 2003. An initial round of prosecution concluded with a Final Rejection filed on June 26, 2009, and a Request for Continued Examination (RCE) filed on August 24, 2009. During a second round of prosecution, the Examiner first rejected all of the claims under 35 U.S.C. § 103(a) as allegedly obvious in view of two references: U.S. Patent No. 6,571,103 (“Novakov”) and U.S. Patent No. 5,276,277 (“Hightower”). The applicant filed a Reply with claim amendments and arguments distinguishing the amended claims from the cited references. However, the Examiner disagreed with the arguments filed a Final Office Action maintaining the rejection of the claims under 35 U.S.C. § 103(a) in view of Novakov and Hightower.

III. ISSUES PRESENTED FOR CONSIDERATION

The applicant respectfully requests a review of the rejection of the presented claims under 35 U.S.C. § 103(a) in view of Hightower and Novakov. The applicant respectfully requests reversal of this rejection at least because neither reference teaches a driven element that is configured to generate a wireless network that is restrictively ranged to the proximity of (at least a portion of) a surface of an object.

Novakov teaches that the signal strength of a communication link may be adjusted in order to alter the range (*e.g.*, the radius of a substantially spherical volume of space) of a wireless network. Significantly, the range of the wireless network generated in the techniques of Novakov is not related to any particular surface, but simply correlates with a desired volume of space (*e.g.*, the interior of a building). That is, the range of the wireless network is related to the volume of space to be adequately covered by the wireless network, not to any objects or surfaces thereof that may be present within or bordering such space. Indeed, the techniques taught in Novakov are applied identically to volumes of space that are completely unbounded (*e.g.*, an outdoor garden) and to volumes of space that are partially or wholly bounded (*e.g.*, the walled interior of a building). In both scenarios, the volume of space to be filled is the same, and according to the techniques presented in Novakov, the strength of the wireless signal is set the same in both locations. There is no “surface” of any kind involved in the techniques of Novakov, nor any teaching of configuring the driven element to generate a wireless network that is restrictively ranged proximate to such a surface.

Hightower relates to materials that may be used to block the transmission of a wireless network through the surface. Such materials may be used as shielding elements that are positioned to block, and therefore shape, the wireless network generated by a driven element. However, the teachings of Hightower do not relate in any way to restricting the range of the wireless network through the configuration of the powered element. Indeed, the only “surfaces” referenced in Hightower are those to which the wireless network may be directed toward, and that block transmission of the wireless network through the surface, whereas the presently claimed techniques relate to the extent to which a wireless network radiates away from a particular surface (such that the wireless network is only accessible within a particular proximity of the surface).

In order to confine an electromagnetic field to a desired volume of space, Hightower teaches the enclosure of the space with the disclosed blocking materials – not the restriction of the range to the proximity of such surfaces, and in particular not via the configuration of the driven element. Moreover, it is respectfully submitted that Hightower teaches away from the claimed subject matter at least because an individual situated within the enclosed space (*e.g.,* an office cubicle) is exposed to the electromagnetic waves that are blocked from leaving the space, whereas the claimed restrictively ranged implementation may reduce the exposure of the user to electromagnetic field.

Thus, it is respectfully submitted that claims 1, 33, and 37 are allowable under 35 U.S.C. § 103(a) in view of Hightower and Novakov. Reversal of the rejection of these claims (as well as claims 2, 4, 6, 8-13, 15, 17-29, 31-32, and 40-42 depending from claim 1 and claims 34-37 and 43-44 depending from claim 33) is respectfully requested.

IV. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance under 35 U.S.C. § 103(a) in view of the cited references. Reversal of this rejection is therefore respectfully requested.

If any fees are due as a result of the filing of this Pre-Appeal Brief, the Commissioner is authorized to charge Deposit Account Number 50-5088, **VOCP101US**.

Respectfully submitted,

COOPER LEGAL GROUP, LLC

By /David J. Stein/
David J. Stein
Reg. No. 47,965

6505 Rockside Road, Suite 330
Independence, Ohio 44131
Phone: (216) 654-0087
Fax: (216) 373-3450